**IN THE CLAIMS:**

1. (Original) A surface emitting semiconductor laser system, comprising:

a first cavity and a second cavity sharing an axis, the first and second cavities overlapping at an outcoupling aperture.

2. (Original) The system of Claim 1, wherein the first cavity has first and second reflectors, and wherein the second cavity has third and fourth reflectors;

wherein the second reflector is positioned between the outcoupling aperture and the third reflector;

wherein the fourth reflector is positioned between the outcoupling aperture and the first reflector.

3. (Original) The system of Claim 2, wherein the first reflector reflects light of a first wavelength;

wherein the third reflector reflects light of a second wavelength;

wherein the second reflector reflects light of the first wavelength but transmits light of the second wavelength; and

wherein the fourth reflector reflects light of the second wavelength but transmits light of the first wavelength.

4. (Original) The system of Claim 3, wherein the first and third reflectors are shallow distributed Bragg reflectors, and wherein the second and fourth reflectors are deep distributed Bragg reflectors.

5. (Currently Amended) A surface emitting semiconductor laser system, comprising:

four cavities, each of the cavities resonating at a different central wavelength;

wherein each of the four cavities overlaps a single outcoupling ~~aperture.~~ aperture;

wherein first and second cavities of the four cavities share a first axis, and wherein third and fourth cavities of the four cavities share a second axis.

6. (Canceled)

7. (Currently Amended) The system of Claim [[6]] 5, wherein the first cavity has first and second reflectors at either end that reflect light of a first wavelength;

wherein the second cavity has third and fourth reflectors at either end that reflect light of a second wavelength;

wherein the second reflector is located on the first axis between the third reflector and the outcoupling aperture;

wherein the fourth reflector is located on the first axis between the first reflector and the outcoupling aperture.

8. (Original) The system of Claim 7, wherein the second reflector does not substantially reflect light of the second wavelength; and

wherein the fourth reflector does not substantially reflect light of the first wavelength.

9. (Original) The system of Claim 7, wherein the first and third reflectors are shallow distributed Bragg reflectors, and wherein the second and fourth reflectors are deep distributed Bragg reflectors.

10. (Original) A surface emitting semiconductor laser system, comprising:

a first cavity having a first reflector at a first end and a second reflector at a second end;

a second cavity having a third reflector at a first end and a fourth reflector at a second end;

a third cavity having a fifth reflector at a first end and a sixth reflector at a second end;

a fourth cavity having a seventh reflector at a first end and an eighth reflector at a second end;

wherein the second reflector is reflective of a first wavelength of light but transmissive of a second wavelength of light;

wherein the fourth reflector is reflective of a the second wavelength but transmissive of the first wavelength;

wherein the sixth reflector is reflective of a third wavelength of light but transmissive of a fourth wavelength of light;

wherein the eighth reflector is reflective of the fourth wavelength but transmissive of light the third wavelength.

11. (Original) The system of Claim 10, wherein the first, second, third, and fourth cavities all overlap an outcoupling aperture.

12. (Original) The system of Claim 10, wherein each cavity resonates at a different wavelength.

13. (Original) The system of Claim 10, wherein the first, third, fifth, and seventh reflectors are shallow distributed Bragg reflector gratings.

14. (Currently Amended) The system of Claim 10, wherein the second, fourth, sixth, and eighth reflectors are deep distributed ~~bragg~~ Bragg reflector gratings.

15. (Currently Amended) A semiconductor laser system, comprising:

four cavities, each of the cavities overlapping at a first outcoupling ~~aperture.~~ aperture, wherein first and second cavities of the four cavities share a first axis, and wherein third and fourth cavities share a second axis.

16. (Canceled)

17. (Currently Amended) The semiconductor laser system of Claim [[16]] 15, wherein the first cavity includes reflectors that reflect light of a first wavelength; wherein the second cavity includes reflectors that reflect light of a second wavelength; wherein the third cavity includes reflectors that reflect light of a third wavelength; and wherein the fourth cavity includes reflectors that reflect light of a fourth wavelength.

18. (Original) A surface emitting semiconductor laser system, comprising:
a first cavity and a second cavity sharing a first axis;
a third cavity and a fourth cavity sharing a second axis;
wherein the first, second, third, and fourth cavities intersect at an outcoupling aperture.

19. (Original) The system of Claim 18, wherein the first cavity produces light of a first wavelength, the second cavity produces light of a second wavelength, the third cavity produces light of a third wavelength, and the fourth cavity produces light of a fourth wavelength.